AutoMDS:

Automated Method Screening, Chiral and Achiral
- 10 or 20 Bottle Solvent Mixer
- 12 or 24 Column Selector with or without Heating & Cooling
- Software with unique spreadsheet Sequence Editor for writing methods
- Methods/Sequences, Installation, Training, and Support Included

Summary:
- Compact, Fully Automated Method Development System with Advanced Capabilities for large Method Screens, Method Optimization, and standard Analysis
- Mixes any Isocratic or Gradient Eluent from 10 or 20 Bottles
- Selects from 12 or 24 Column Positions with heating and cooling for unprecedented Chromatographic Flexibility
- Extensive Library of transferrable Separation Methods and Sequences
- Column Care Methods included in Sequences
- View good methods instantly by filtering chromatograms based on minimum area, number of peaks, etc.
- Personalized Technical Support from Experienced Chromatographers

Basic System (new/existing HPLC)
- 10 or 20 Bottle Solvent Mixer (PDR)
- Isocratic Pump (multi-vendor)
- Autosampler (multi-vendor)
- Column Selector (PDR)
- Columns (multi-vendor)
- UV Detector (multi-vendor)
- Computer and Monitor (multi-vendor)
- AutoMDS Software (PDR)
- Methods and Sequences (PDR)
- Continuous Column Care (PDR)
- Installation, Training, and Support (PDR)

Figure 1 shows AutoMDS on Agilent 1100 with our Advanced Laser Polarimeter. This AutoMDS is used in 24/7 method screening and can mix isocratic or gradient eluents from 20 bottles and select from 24 columns. AutoMDS software runs the entire system, including direct control of Agilent components.

Software
- Advanced Instrument Control, Data Acquisition, and Data Processing
- Universal User Interface – Hardware Independent and controls many pumps, autosamplers, detectors, etc.
- Fully Automated, including Remote Control via internet
- Unique “Real Time” Data Processing Algorithms
- Integrated Functions for Data Analysis, Chiral Analysis, Reports, Methods, Sequences, etc. with special features for large sequences and automated operation.
- View good methods instantly by filtering chromatograms based on minimum area, number of peaks, etc.

AutoMDS was developed 100% in-house for automating method development and is convenient for writing, editing, and running large sequences, see Figure 2. Sequence are built or edited in the Sequence Editor (bottom of screen shot) using an intuitive spreadsheet format convenient for large sequences. A Plot window (top of screen shot) shows chromatograms and has configurable shortcut buttons for commonly used features. The Plot window is the main user interface and is purposefully kept simple. A Settings window (not shown) is used during initial installation to configure the system. Each window can be sized and moved separately. Our simplified user interface and methods/sequences are universal and not dependent on the HPLC being controlled. AutoMDS can control, for example, Agilent or Shimadzu HPLC with the same user interface, methods, and sequences making hardware nearly transparent. AutoMDS shares user interface with AutoPrep.
**Solvent Mixer:**
PDR-Separations new compact Solvent Mixer can randomly mix from 10 or 20 solvent bottles. Each solenoid valve is microprocessor controlled and can be changed individually. Mixer can run multi-dimensional gradients. Especially useful for automating solvent and additive optimization in automated method development.

10 or 20 solvent channels (bottles)
Size = 10w x 6h x 12d inches
Power = 100-240 VAC, 50-60 Hz

**Column Selector:**
PDR-Separations new compact Column Selector can be configured with one or two valves (12 or 24 column positions) and with or without heating/cooling. This Column Selector provides random access to many columns, time is not wasted changing columns, and sequences and methods can be run automated and unattended. Simply pulling the door handle releases magnetic latches and the door is completely free to be laid aside for easy access to columns.

12 or 24 column positions
TEC heating/cooling option
Size = 10w x 21h x 12d inches
Power = 100-240 VAC, 50-60 Hz